

## Patent Abstracts of Japan

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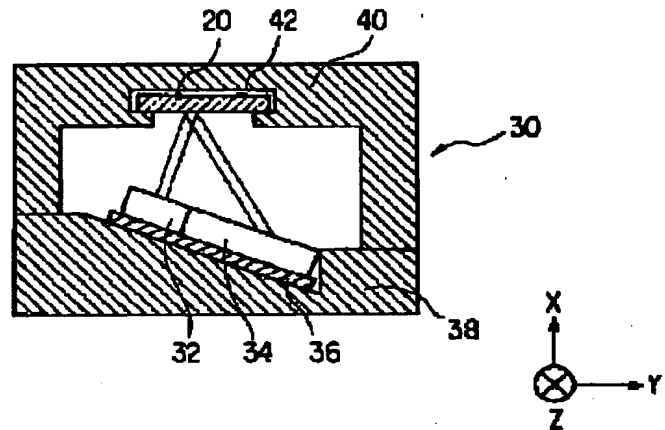
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APPLICANT : OLYMPUS OPTICAL CO LTD;

INVENTOR : YAMAMOTO EIJI;

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TITLE : OPTICAL LINEAR ENCODER



**ABSTRACT :** PROBLEM TO BE SOLVED: To provide an optical encoder, which is compact and has the high measuring accuracy.

**SOLUTION:** An optical linear encoder has a scale 20 and a detecting head 30. The scale 20 comprises, e.g. a glass plate and has an optically detectable pattern. The detecting head 30 has the pattern detecting sensor for detecting movement of the pattern of the scale 20. The pattern detecting sensor has a light source part 32 for projecting the light toward the scale 20 and a light detector 34 for detecting the reflected light from the scale 20. The light source part 32 and the light detecting part 34 are bonded to a heat radiating and wiring substrate 36. The heat radiating substrate 36 is bonded to the slant part of a supporting stage 38. A holding member 40 is bonded to the supporting stage 38. The scale 20 is supported by a guiding groove 42 provided in the holding member 40 so that the scale can be moved in the longitudinal direction. At the upper surface of the guiding groove 42, a plate spring, which pushes the scale 20 to the lower surface of the guiding groove 42 in tight contact, is provided.

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